

WHAT IS CLAIMED IS:

1. A retractable vehicle step assist, comprising:

a first unitary support arm defining an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness;

a second unitary support arm defining an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a second thickness, said second arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a second width, said second width being substantially greater than said second thickness;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively;

a static stop member located within a range of motion of one of said first support arm and said second support arm; and

a step member having a support bracket and a stepping deck rigidly connected to said support bracket, said stepping deck having an upper surface, said first support arm and said second support arm connected to said support bracket opposite said stepping deck so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

wherein said first axis is spaced from said third axis by a first distance, said second axis is spaced from said fourth axis by a second distance, said first axis is spaced from said second axis by a third distance, and said third axis is spaced from

said fourth axis by a fourth distance, as said step assist is viewed in a plane perpendicular to said first axis, and said third distance and said fourth distance are unequal;

said first support arm and said second support arm allowing said step member and said stepping deck to move between a retracted position and a deployed position downward and outboard from said retracted position;

wherein, when said step member is in said deployed position, said support bracket extends inboard and upward from said stepping deck and said upper surface of said stepping deck is the uppermost portion of said step member outboard of said support bracket;

wherein the entirety of said stepping deck is located outboard of said first axis when said step member is in said deployed position and at least a portion of said stepping deck is located inboard of said second axis when said step member is in said retracted position;

wherein said static stop member, said first support arm, said second support arm and said step member are sufficient to maintain said stepping deck in said deployed position when a user steps onto said stepping deck.

2. The retractable vehicle step assist of Claim 1, wherein said first distance and said second distance are unequal.

3. The retractable vehicle step assist of Claim 1, wherein said static stop member is fixedly mountable with respect to an underside of said vehicle so that said outboard surface of said first support arm contacts said static stop member when said step member is in said deployed position.

4. The retractable vehicle step assist of Claim 1, wherein said static stop member is located on one of said first support arm and said second support arm and contacts the other of said first support arm and said second support arm when said step member is in said deployed position.

5. A retractable vehicle step assist, comprising:

a first unitary support arm defining an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness;

a second unitary support arm defining an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a second thickness, said second arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a second width, said second width being substantially greater than said second thickness;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively;

a static stop member located within a range of motion of one of said first support arm and said second support arm; and

a step member having a support bracket and a stepping deck rigidly connected to said support bracket, said stepping deck having an upper surface, said first support arm and said second support arm connected to said support bracket opposite said stepping deck so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

wherein said first axis is spaced from said third axis by a first distance, said second axis is spaced from said fourth axis by a second distance, said first axis is spaced from said second axis by a third distance, and said third axis is spaced from said fourth axis by a fourth distance, as said step assist is viewed in a plane

perpendicular to said first axis, said first distance and said second distance are unequal, and said third distance and said fourth distance are unequal;

said first support arm and said second support arm allowing said step member and said stepping deck to move between a retracted position and a deployed position downward and outboard from said retracted position;

wherein, when said step member is in said deployed position, said support bracket extends inboard and upward from said stepping deck and said upper surface of said stepping deck is the uppermost portion of said step member outboard of said support bracket;

wherein said static stop member, said first support arm, said second support arm and said step member are sufficient to maintain said stepping deck in said deployed position when a user steps onto said stepping deck.

6. The retractable vehicle step assist of Claim 5, wherein the entirety of said stepping deck is located outboard of said first axis when said step member is in said deployed position and at least a portion of said stepping deck is located inboard of said second axis when said step member is in said retracted position.

7. A retractable vehicle step assist, comprising:

a first support arm;

a second support arm;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having a support bracket and a stepping deck rigidly connected to said support bracket, said stepping deck having an upper surface, said first support arm and said second support arm connected to said support bracket opposite said stepping deck so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member and said stepping deck to move between a retracted position and a deployed position downward and outboard from said retracted position;

      said first support arm having an upper portion and a lower portion interconnected by an intermediate portion, said intermediate portion being thinner than at least one of said upper portion and said lower portion, said intermediate portion being located such that said support arms can rotate about said first and second axes to a point at which a portion of the second support arm is spaced from a line connecting the first and third axes by an orthogonal distance less than half the maximum thickness of the first support arm.

8.      The retractable vehicle step assist of Claim 7, wherein said intermediate portion contacts said second support arm when said step member is in at least one of said retracted position and said deployed position.

9.      The retractable vehicle step assist of Claim 7, wherein said second support arm has an upper portion and a lower portion, said upper portion of said second support arm being thicker than said lower portion of said second support arm.

10.     The retractable vehicle step assist of Claim 7, wherein said first axis is spaced from said third axis by a first distance, and said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

11.     The retractable vehicle step assist of Claim 10, wherein said first distance is greater than said second distance.

12.     The retractable vehicle step assist of Claim 10, wherein said second distance is greater than said first distance.

13.     The retractable vehicle step assist of Claim 7, wherein said step member defines a plane for supporting at least a forefoot, said plane takes on a first orientation when

said step member is in said deployed position and a second orientation when said step member is in said retracted position, said second orientation being inclined with respect to said first orientation.

14. The retractable vehicle step assist of Claim 13, wherein said stepping deck has an inboard end and an outboard end, and said outboard end is located upward from said inboard end when said plane is in said second orientation.

15. The retractable vehicle step assist of Claim 7, wherein said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

16. The retractable vehicle step assist of Claim 7, wherein:

    said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness; and

    said second support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said second support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

17. The retractable vehicle step assist of Claim 7, further comprising a static stop member located within a range of motion of one of said first support arm and said second support arm, wherein said static stop member, said first support arm, said second support arm

and said step member are sufficient to maintain said stepping deck in said deployed position when a user steps onto said stepping deck.

18. The retractable vehicle step assist of Claim 7, wherein said first support arm extends outboard and downward from said first axis of rotation and said second support arm extends outboard and downward from said second axis of rotation when said step member is in said deployed position.

19. The retractable vehicle step assist of Claim 7, wherein said step member further comprises a support bracket connected to and extending upward and inboard from said stepping deck when said step member is in said deployed position, said first and second support arms being rotatably connected to said step member at said support bracket.

20. A retractable vehicle step assist, comprising:

a first support arm;

a second support arm;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having a support bracket and a stepping deck rigidly connected to said support bracket, said first support arm and said second support arm connected to said support bracket opposite said stepping deck so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member and said stepping deck to move between a retracted position and a deployed position downward and outboard from said retracted position;

said first support arm having an upper portion and a lower portion interconnected by an intermediate portion, said intermediate portion being thinner

than said at least one of said upper portion and said lower portion, said intermediate portion contacting said second support arm when said step member is in at least one of said retracted position and said deployed position.

21. The retractable vehicle step assist of Claim 20, wherein said intermediate portion is located such that said support arms can rotate about said first and second axes to a point at which a portion of the second support arm is spaced from a line connecting the first and third axes by an orthogonal distance less than half the maximum thickness of the first support arm.

22. The retractable vehicle step assist of Claim 20, wherein said second support arm has an upper portion and a lower portion, said upper portion of said second support arm being thicker than said lower portion of said second support arm.

23. The retractable vehicle step assist of Claim 20, wherein said first axis is spaced from said third axis by a first distance, and said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

24. The retractable vehicle step assist of Claim 23, wherein said first distance is greater than said second distance.

25. The retractable vehicle step assist of Claim 23, wherein said second distance is greater than said first distance.

26. The retractable vehicle step assist of Claim 20, wherein said step member defines a plane for supporting at least a forefoot, said plane takes on a first orientation when said step member is in said deployed position and a second orientation when said step member is in said retracted position, said second orientation being inclined with respect to said first orientation.

27. The retractable vehicle step assist of Claim 26, wherein said stepping deck has an inboard end and an outboard end, and said outboard end is located upward from said inboard end when said plane is in said second orientation.

28. The retractable vehicle step assist of Claim 20, wherein said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

29. The retractable vehicle step assist of Claim 20, wherein:

    said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness; and

    said second support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said second support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

30. The retractable vehicle step assist of Claim 20, further comprising a static stop member located within a range of motion of one of said first support arm and said second support arm, wherein said static stop member, said first support arm, said second support arm and said step member are sufficient to maintain said stepping deck in said deployed position when a user steps onto said stepping deck.

31. The retractable vehicle step assist of Claim 20, wherein said first support arm extends outboard and downward from said first axis of rotation and said second support arm extends outboard and downward from said second axis of rotation when said step member is in said deployed position.

32. The retractable vehicle step assist of Claim 20, wherein said step member further comprises a support bracket connected to and extending upward and inboard from said stepping deck when said step member is in said deployed position, said first and second support arms being rotatably connected to said step member at said support bracket.

33. A retractable vehicle step assist, comprising:

a first support arm;

a second support arm;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having a support bracket and a stepping deck rigidly connected to said support bracket, said first support arm and said second support arm connected to said support bracket opposite said stepping deck so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member and said stepping deck to move between a retracted position and a deployed position downward and outboard from said retracted position;

said first and second arms having a bent configuration such that said arms can rotate about said first and second axes to a point at which a line connecting the first and third axes intersects a portion of the second arm near the second axis.

34. The retractable vehicle step assist of Claim 33, wherein said first axis is spaced from said third axis by a first distance, and said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed from in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

35. The retractable vehicle step assist of Claim 34, wherein said first distance is greater than said second distance.

36. The retractable vehicle step assist of Claim 34, wherein said second distance is greater than said first distance.

37. The retractable vehicle step assist of Claim 33, wherein said step member defines a plane for supporting at least a forefoot, said plane takes on a first orientation when said step member is in said deployed position and a second orientation when said step member is in said retracted position, said second orientation being inclined with respect to said first orientation.

38. The retractable vehicle step assist of Claim 37, wherein said stepping deck has an inboard end and an outboard end, and said outboard end is located upward from said inboard end when said plane is in said second orientation.

39. The retractable vehicle step assist of Claim 33, wherein said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

40. The retractable vehicle step assist of Claim 33, wherein:

    said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a

substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness; and

    said second support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said second support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

41.     The retractable vehicle step assist of Claim 33, further comprising a static stop member located within a range of motion of one of said first support arm and said second support arm, wherein said static stop member, said first support arm, said second support arm and said step member are sufficient to maintain said stepping deck in said deployed position when a user steps onto said stepping deck.

42.     The retractable vehicle step assist of Claim 33, wherein said first support arm extends outboard and downward from said first axis of rotation and said second support arm extends outboard and downward from said second axis of rotation when said step member is in said deployed position.

43.     The retractable vehicle step assist of Claim 33, wherein said step member further comprises a support bracket connected to and extending upward and inboard from said stepping deck when said step member is in said deployed position, said first and second support arms being rotatably connected to said step member at said support bracket.

44.     A retractable vehicle step assist, comprising:

    a first support arm;

    a second support arm;

    said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally

parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having a support bracket and a stepping deck rigidly connected to said support bracket, said first support arm and said second support arm connected to said support bracket opposite said stepping deck so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member and said stepping deck to move between a retracted position and a deployed position downward and outboard from said retracted position;

wherein at least a portion of said stepping deck is located above said first axis when said stepping deck is in said retracted position;

wherein said first axis is spaced from said third axis by a first distance, and said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

45. The retractable vehicle step assist of Claim 44, wherein at least a majority of said stepping deck is located above said first axis when said stepping deck is in said retracted position.

46. The retractable vehicle step assist of Claim 44, wherein said stepping deck is inclined with respect to the horizontal when said stepping deck is in said retracted position.

47. The retractable vehicle step assist of Claim 44, wherein said first distance is greater than said second distance.

48. The retractable vehicle step assist of Claim 44, wherein said second distance is greater than said first distance.

49. The retractable vehicle step assist of Claim 44, wherein said step member defines a plane for supporting at least a forefoot, said plane takes on a first orientation when said step member is in said deployed position and a second orientation when said step member is in said retracted position, said second orientation being inclined with respect to said first orientation.

50. The retractable vehicle step assist of Claim 49, wherein said stepping deck has an inboard end and an outboard end, and said outboard end is located upward from said inboard end when said plane is in said second orientation.

51. The retractable vehicle step assist of Claim 44, wherein said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

52. The retractable vehicle step assist of Claim 44, wherein:

    said first support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said first support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness; and

    said second support arm defines an inboard surface and an outboard surface, a maximum distance between said inboard surface and said outboard surface defining a first thickness, said second support arm defining a substantially vertical first side and a substantially vertical second side, a maximum distance between said first side and said second side defining a first width, said first width being substantially greater than said first thickness.

53. The retractable vehicle step assist of Claim 44, further comprising a static stop member located within a range of motion of one of said first support arm and said second support arm, wherein said static stop member, said first support arm, said second support arm and said step member are sufficient to maintain said stepping deck in said deployed position when a user steps onto said stepping deck.

54. The retractable vehicle step assist of Claim 44, wherein said first support arm extends outboard and downward from said first axis of rotation and said second support arm extends outboard and downward from said second axis of rotation when said step member is in said deployed position.

55. The retractable vehicle step assist of Claim 44, wherein said step member further comprises a support bracket connected to and extending upward and inboard from said stepping deck when said step member is in said deployed position, said first and second support arms being rotatably connected to said step member at said support bracket.

56. A retractable vehicle step assist, comprising:

a first support arm;

a second support arm;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having an upper stepping surface, said first support arm and said second support arm connected to said step member so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member to move between a retracted position and a deployed position downward and outboard from said retracted position;

wherein, as said step assist is viewed in a plane perpendicular to said first axis, said first axis and said third axis define a first line and said second axis and said fourth axis define a second line, said first line and said second line intersecting at an instantaneous center of rotation of said step member;

wherein, when said step member is in said retracted position, said instantaneous center of rotation is located at or inboard of said upper stepping surface, and outboard of said first axis.

57. A retractable vehicle step assist, comprising:

- a first support arm;
- a second support arm;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having an upper stepping surface, said first support arm and said second support arm connected to said step member so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member to move between a retracted position and a deployed position downward and outboard from said retracted position;

wherein at least a portion of said upper stepping surface initially moves upward as said step member moves from said retracted position to said deployed position.

58. A retractable vehicle step assist, comprising:

- a first support arm;
- a second support arm;

said first support arm and said second support arm connectable with respect to an underside of a vehicle so as to be pivotable about a first axis oriented generally parallel to the ground and a second axis oriented generally parallel to the ground, respectively; and

a step member having an upper stepping surface, said first support arm and said second support arm connected to said step member so that said first support arm and said second support arm are pivotable with respect to said step member about a third axis and a fourth axis, respectively, said fourth axis located inboard from said third axis;

said first support arm and said second support arm allowing said step member to move between a retracted position and a deployed position downward and outboard from said retracted position;

wherein said upper stepping surface follows a deployment path as said step member moves from said retracted position to said deployed position, said deployment path including an initial upward component.

59. The step assist of Claim 56, wherein said instantaneous center of rotation is located at or inboard of an inboard quarter of said upper stepping surface, when said step member is in said retracted position.

60. The step assist of Claim 56, wherein said instantaneous center of rotation is located at or inboard of an inboard half of said upper stepping surface, when said step member is in said retracted position.

61. The step assist of Claim 56, wherein said instantaneous center of rotation is located at or inboard of an inboard two-thirds of said upper stepping surface, when said step member is in said retracted position.

62. The step assist of Claim 56, wherein said instantaneous center of rotation is located at or inboard of an entirety of said upper stepping surface, when said step member is in said retracted position.

63. The step assist of Claim 56, wherein said instantaneous center of rotation is located at or inboard of an entirety of said upper stepping surface, when said step member is in said retracted position.

64. The step assist of Claim 56, wherein said upper stepping surface is located outboard of a door of said vehicle, when said step member is in said retracted position.

65. The step assist of Claim 64, wherein an entirety of said upper stepping surface is located outboard of said door, when said step member is in said retracted position.

66. The step assist of Claim 56, wherein said first axis is spaced from said third axis by a first distance, said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

67. The step assist of Claim 56, wherein said first axis is spaced from said second axis by a third distance, and said third axis is spaced from said fourth axis by a fourth distance, as said step assist is viewed in a plane perpendicular to said first axis, and said third distance and said fourth distance are unequal.

68. The step assist of Claim 56, wherein said first line and said second line are non-parallel when said step member is in said deployed position.

69. The step assist of Claim 56, wherein at least a portion of said upper stepping surface initially moves upward as said step member moves from said retracted position to said deployed position.

70. The step assist of Claim 57 wherein, as said step assist is viewed in a plane perpendicular to said first axis, said first axis and said third axis define a first line and said second axis and said fourth axis define a second line, said first line and said second line intersecting at an instantaneous center of rotation of said step member;

wherein, when said step member is in said retracted position, said instantaneous center of rotation is located at or inboard of said upper stepping surface.

71. The step assist of Claim 70, wherein said first line and said second line are non-parallel when said step member is in said deployed position.

72. The step assist of Claim 57, wherein said upper stepping surface is located outboard of a door of said vehicle, when said step member is in said retracted position.

73. The step assist of Claim 72, wherein an entirety of said upper stepping surface is located outboard of said door, when said step member is in said retracted position.

74. The step assist of Claim 57, wherein said first axis is spaced from said third axis by a first distance, said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

75. The step assist of Claim 57, wherein said first axis is spaced from said second axis by a third distance, and said third axis is spaced from said fourth axis by a fourth distance, as said step assist is viewed in a plane perpendicular to said first axis, and said third distance and said fourth distance are unequal.

76. The step assist of Claim 58 wherein, as said step assist is viewed in a plane perpendicular to said first axis, said first axis and said third axis define a first line and said second axis and said fourth axis define a second line, said first line and said second line intersecting at an instantaneous center of rotation of said step member;

wherein, when said step member is in said retracted position, said instantaneous center of rotation is located at or inboard of said upper stepping surface.

77. The step assist of Claim 76, wherein said first line and said second line are non-parallel when said step member is in said deployed position.

78. The step assist of Claim 58, wherein said upper stepping surface is located outboard of a door of said vehicle, when said step member is in said retracted position.

79. The step assist of Claim 78, wherein an entirety of said upper stepping surface is located outboard of said door, when said step member is in said retracted position.

80. The step assist of Claim 58, wherein said first axis is spaced from said third axis by a first distance, said second axis is spaced from said fourth axis by a second distance, as said step assist is viewed in a plane perpendicular to said first axis, and said first distance and said second distance are unequal.

81. The step assist of Claim 58, wherein said first axis is spaced from said second axis by a third distance, and said third axis is spaced from said fourth axis by a fourth distance, as said step assist is viewed in a plane perpendicular to said first axis, and said third distance and said fourth distance are unequal.